

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of identifying an agent that alters the level of surface expression of a membrane ion channel in a mammalian cell, said method comprising:
 - a) preparing a medium containing mammalian cells that express said membrane ion channel;
 - b) adding to said medium containing mammalian cells a test amount of a candidate agent;
 - c) incubating said cells in the presence of said candidate agent for ~~a predetermined period of time~~ for at least 16 hours;
 - d) treating said cells with an amount of a fixative effective to stabilize said cells for subsequent processing and examination;
 - e) adding to said medium containing mammalian cells, candidate agent and fixative of step (d) at least one antibody which binds to at least one extracellular epitope of said ~~protein~~ membrane ion channel in an amount effective to measurably bind to said protein, wherein said extracellular epitope contains a tag; and
 - f) determining the level of binding of said antibody to said membrane ion channel with said candidate agent, wherein a change in said level of binding relative to control indicates that said candidate agent alters the level of surface expression of said membrane ion channel, wherein said control comprises said medium containing mammalian cells that express said ~~protein~~ membrane ion channel in

an amount equal to that in step (a) and said at least one antibody in an amount equal to that added in step ~~(d)~~ (e).

2. (Previously Presented) The method according to claim 1, wherein step (e) comprises adding at least one primary antibody followed by an approximately equal amount of at least one secondary antibody, wherein said primary antibody binds to at least one extracellular epitope of said membrane ion channel and said secondary antibody binds to said first antibody.

3. (Original) The method according to claim 1, wherein said level of binding is measured by fluorescence, luminescence, radioactivity, absorbance or a combination of two or more thereof.

4. (Cancelled)

5. (Original) The method according to claim 2, wherein said at least one extracellular epitope comprises a wild-type epitope.

6. (Cancelled).

7. (Previously Presented) The method according to claim 1, wherein said extracellular tag replaces at least a portion of an extracellular domain of said membrane ion channel.

8. (Original) The method according to claim 7, wherein said extracellular tag is inserted in an extracellular domain of said membrane ion channel.

9. (Previously Presented) The method according to claim 1, wherein said extracellular tag comprises a hemagglutinin (HA) tag.

10-18. (Cancelled).

19. (Previously Presented) The method according to claim 1, wherein said antibody is coupled to an enzyme.

20. (Previously Presented) The method according to claim 19 wherein said enzyme is selected from the group consisting of peroxidases, luciferases, alkaline phosphatases, glucose oxidases, beta-galactosidases and mixtures of two or more thereof.

21-29. (Cancelled).

30. (Currently Amended) The method according to claim 6 1, wherein said tag in said extracellular epitope is the only tag present on said membrane ion channel.

31. (Previously Presented) The method according to claim 1, wherein said membrane ion channel contains a fluorescent tag.

32. (Original) The method according to claim 31, wherein said tag is selected from the group consisting of Green Fluorescent Protein, Red Fluorescent Protein, Blue Fluorescent Protein and amino acid sequences which selectively bind a molecule which has a detectable characteristic.

33. (Previously Presented) The method according to claim 32, wherein said tag replaces at least a portion of an intracellular domain of said membrane ion channel.

34. (Previously Presented) The method according to claim 32, wherein said tag is inserted in an intracellular domain of said membrane ion channel.

35. (Previously Presented) The method according to claim 33 or 34, wherein said tag in said intracellular domain is the only tag present on said membrane ion channel.